A B S T R A C T

An orthogonal signal generating unit converts
a signal to be measured into two orthogonal signals
which are two signals whose phases are orthogonal to
5   one another. An instantaneous phase calculating unit
calculates an instantaneous phase based on the two
orthogonal signals within a range between a lower limit
phase value set in advance and an upper limit phase
value set in advance. A differential value detecting
10   unit detects a differential value of the instantaneous
phase. A differential value correcting unit corrects
the differential value, and outputs a corrected
differential value when the differential value of the
instantaneous phase is over the range dependent on the
15   lower limit phase value and the upper limit phase
value. An offset component eliminating unit eliminates
an offset component included in the corrected
differential value from the corrected differential
value output from the differential value correcting
20   unit, and outputs a differential value from which the
offset component has been eliminated. An integration
unit determines a jitter amount of the signal to be
measured by integrating the differential value which is
output from the offset component eliminating unit, and
25   from which the offset component has been eliminated.

(54) Title: JITTER MEASUREMENT DEVICE AND JITTER MEASUREMENT METHOD

(54) 発明の名称: ジッタ測定装置及びジッタ測定方法
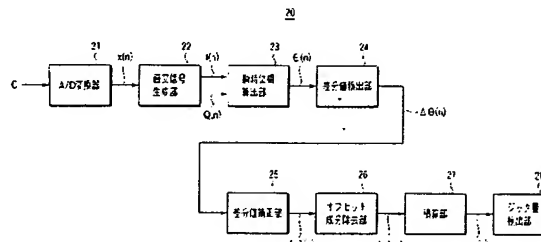
21...A/D CONVERTER
22...ORTHOGONAL SIGNAL GENERATION UNIT
23...INSTANTANEOUS PHASE CALCULATION UNIT
24...DIFFERENCE VALUE DETECTION UNIT
25...DIFFERENCE VALUE CORRECTION UNIT
26...OFFSET COMPONENT REMOVAL UNIT
27...ACCUMULATION UNIT
28...JITTER AMOUNT DETECTION UNIT

(57) Abstract: An orthogonal signal generation unit converts a signal to be measured into orthogonal two signals which are two signals having phases orthogonal to each other. An instantaneous phase calculation unit calculates an instantaneous phase from the orthogonal two signals in a range between a predetermined lower limit phase value and a predetermined upper limit phase value. A difference value detection unit detects a difference value of the instantaneous phase. When the difference value of the instantaneous phase exceeds the range defined by the lower limit phase value and the upper limit phase value, a difference value correction unit corrects the difference value and outputs the corrected difference value. An offset component removal unit removes an offset component contained in the corrected difference value from the corrected difference value outputted from the difference value correction unit and outputs the difference value from which the offset component has been removed. An accumulation unit accumulates the difference value from which the offset component has been removed and which is outputted from the offset component removal unit, thereby calculating a jitter amount of the signals to be measured.

(57) 要約:　　直交信号生成部は、被測定信号を互いに位相が直交する２つの信号である直交２信号に変換する。瞬時位相算出部は、前記直交２信号から瞬時位相を、予め定められた下限位相値と予め定められた上限位相値との間の範囲で算出する。差分値検出部は、前記瞬時位相の差分値を検出する。差分値補正部は、前記瞬時位相の差分値が、前記下限位相値と前記上限位相値とに依存する範囲を超えた場合に、その差分値を補正して補正された差分値を出力する。オフセット成分除去部は、前記差分値補正部から出力される前記補正された差分値から、当該補

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